

AMENDMENTS TO THE CLAIMS:

1. (Currently Amended) A method of processing an image obtained by a slot scanning radiographic imaging apparatus in which a collimated beam of illuminating radiation is transmitted through a subject to a detector to produce said image, the method comprising the steps of: ~~correcting~~ for degradation of the image caused by scattering of illuminating radiation by applying to the image a scatter mask.

taking a full field scatter mask which defines the contribution of scattered radiation to the intensity of the image at a given detector position in terms of the intensity at a plurality of surrounding detector positions:

preparing an adapted scatter mask representing the sum of a plurality of elemental scatter masks, each of said plurality of elemental scatter masks corresponding to a different exposure position of said beam and detector relative to said subject, and each of said plurality of elemental scatter masks having values of the full field scatter mask set to zero outside the area of illumination to allow for an effect on scatter due to collimation of the illuminating radiation; and

convolving the image produced by the detector with the adapted scatter mask to correct for degradation of the image caused by scattering of the illuminating radiation.

2. (Canceled)

3. (Canceled)

4. (Original) A method according to claim 1 wherein the scatter mask is adapted to allow for the effect on scatter of the distance between the detector and the subject.

5. (Original) A method according to claim 4 wherein the scatter mask is adapted to allow for the effect on scatter of the distance between the detector and the subject by assuming that the subject extends up to the detector.

6. (Canceled)

7. (Currently Amended) A method according to claim 6 1 wherein the adapted scatter mask is ~~adapted to allow for the effect on scatter of time delay integration in the detector~~ prepared by multiplying a full field scatter mask by a piecewise linear function.

8. (Original) A method according to claim 7 wherein the piecewise linear function is of sawtooth shape.

9. (Canceled)

10. (Canceled)

11. (Currently Amended) A method according to claim 6 1 wherein in adapting the scatter mask to allow for the effect on scatter of time delay integration in the detector, the energy imparted to each pixel is assumed to be the same at each detector position for that pixel.

12. (Currently Amended) An image processing apparatus for processing an image obtained by a slot scanning radiographic imaging apparatus in which a collimated beam of illuminating radiation is transmitted through a subject to a detector, the apparatus comprising processing means adapted to: correcting

take a full field scatter mask which defines the contribution of scattered radiation to the intensity of the image at a given detector position in terms of the intensity at a plurality of surrounding detector positions;

to prepare an adapted scatter mask representing the sum of a plurality of elemental scatter masks, each of said plurality of elemental scatter masks corresponding to a different exposure position of said beam and detector relative to said subject, and each of said plurality of elemental scatter masks having values of the full field scatter mask set to zero outside the area of illumination to allow for an effect on scatter due to collimation of the illuminating radiation; and

to convolve the image produced by the detector with the adapted scatter mask to correct for degradation of the image caused by scattering of illuminating radiation by applying to the image a scatter mask.

13. (Original) A slot scanning radiographic imaging apparatus comprising an image processing apparatus according to claim 12.

14. (Original) A computer readable storage medium carrying a computer program comprising program code means for executing on a programmed computer system the method of claim 1.